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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,695	08/06/2001	George Johan Peter Britovsek	01435.0121	8053
22852	7590	05/18/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			LEE, RIP A	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/921,695

Applicant(s)

BRITOVSEK ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 26-64 is/are allowed.
- 6) ☒ Claim(s) 1,4-7,20 and 23 is/are rejected.
- 7) ☒ Claim(s) 2,8-19 and 22-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This office action follows a response filed on February 9, 2005. Claims 1, 2, 4-20, 22-25, 44 were amended. Claim 21 was canceled and new claims 46-64 were added. Claims 1-20 and 22-64 are pending. The indicated allowability of claim 23 has been withdrawn in view of U.S. Patent No. 4,361,714 (Langer *et al.*) Apparently, the contents of this reference were overlooked.

### *Claim Objections*

1. Claim 23 is objected to because of the following informalities: It is not certain whether the term "the alkyl groups" refers to putative "alkyl groups" on the alkyl zinc compound or some other species. The claim is vague due to the current claim language. Appropriate correction is required.
2. Claims 24 and 25 are objected to because of the following informalities: The claims are drawn to a mole ratio which appears in claim 2, not claim 1. Please check the dependency and make appropriate corrections.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 4-7, 20, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Langer *et al.* (U.S. 4,361,714).

The reference teaches a process in which ethylene is contacted with  $ZrCl_4$  and an alkyl zinc compound such as dimethylzinc, diethylzinc, dibenzylzinc, and dicyclohexylzinc (claim 1, col. 2, lines 62-65). The latter two compounds satisfy the structural parameters set forth in instant claim 4. The product is linear alpha olefins having a number average molecular weight in the range of 200-700, and the products follow a Flory distribution (also known as a Schulz-Flory distribution) (col. 2, line 24). Reactions are performed in *n*-heptane (example 1).

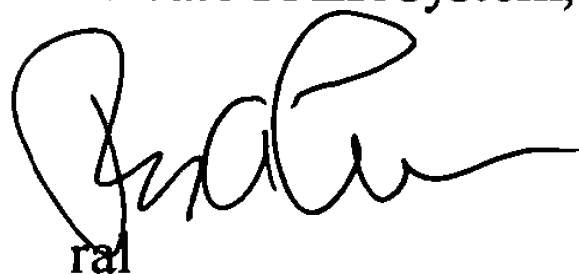
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5. Claims 2, 8-19, 22, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. According to Langer *et al.*, the mole ratio of zinc component to transition metal is 0.1/1 to 0.5/1, and this lies outside the range set forth in claim 2. The subject matter of the remaining claims is not taught in the patent.

6. As indicated previously, claims 3 and 26-43, and 44-64 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



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May 11, 2005